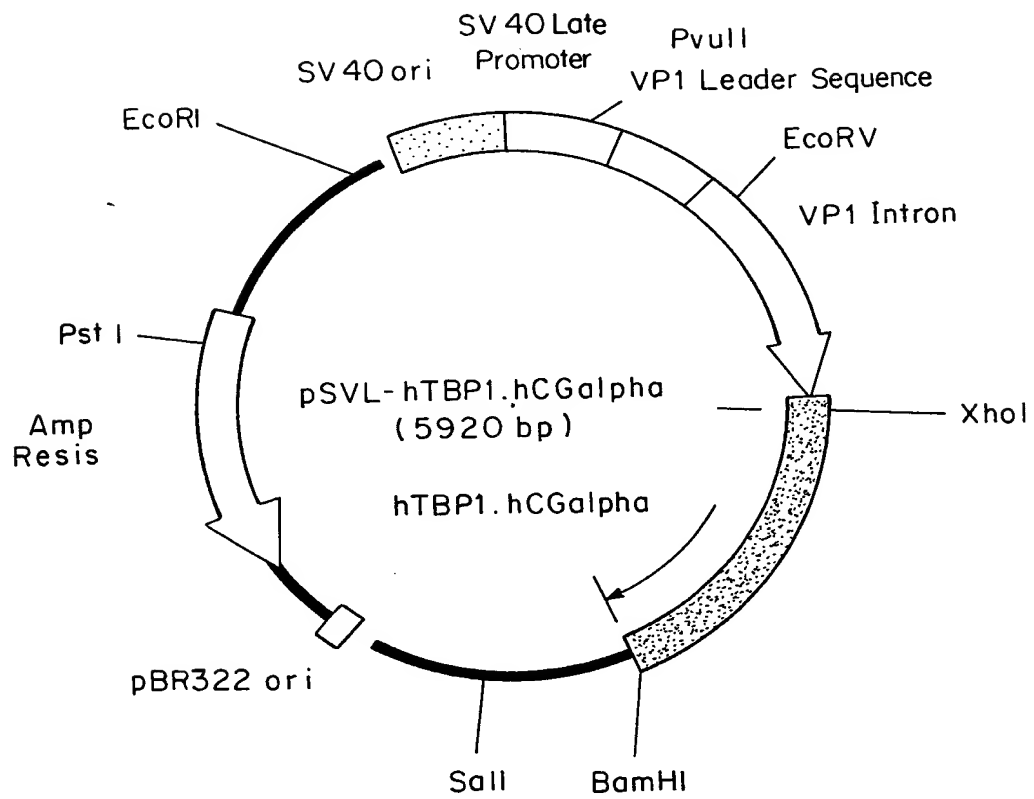




FIG. 1a(1)





hGH Intron

Met Ala Thr

CGGCTCCCTCCTGTGCCCTCTGGTTTCTCCCCAGGC

TTCC	CGG	ACG	TCC	CTG	CTC	CTG	GCT	TTT	GGC	CTG	CTC	TGC	CTG	CCC	TGG	CTT
► Ser	Arg	Thr	Ser	Leu	Leu	Leu	Ala	Phe	Gly	Leu	Leu	Cys	Leu	Pro	Trp	Leu

+20 Asp of Processed TBPI

Gln Gln Gln Ser A

Thr Tyr Leu Tyr Asn

Arx His Cys Tell Ser

Linker

א אלהינו יתנו לנו חסדך ורחמיך
אלהינו יתנו לנו חסדך ורחמיך

+7 Cys of hCG alpha

▲ Cys Pro Glu Cys Thr

Dr. Thyr Dr. Tell Arg

ACA GTA ATG GGG GGT TTC AAA GTG GAG AAC CAC ACC GCG TCC CAC ACC AGC
TTC TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT

Thr Val Met Gly Gly Phe Lys Val Glu Asn His Ile Ala Cys His Cys Ser Lys Tyr

Bam HI

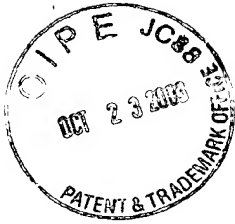
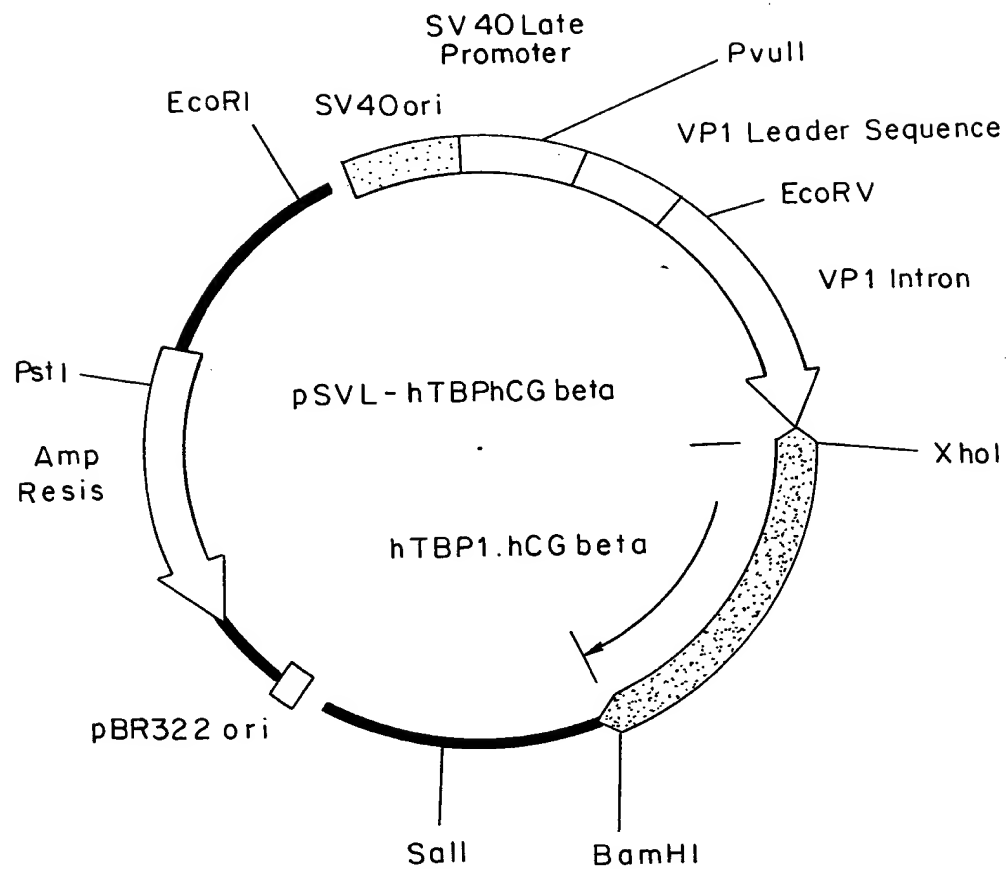


FIG. 1b(1)





hGH Intron

CTCGAG ATG GCT ACA ... G GTAAGCGCCCTAAATCCTTTGGGCACAATGTCTCTGAGGGAGAGGTAGCGACCTGTAGATGGGACGGGGGCACTAACCCCTCAGGTTTGGG ...
 ▶ Met Ala Thr

GCTTCTGAATGTGAGTATCGCCATGTAAGCCCAGTATTTGGCCAACTCAGAAAGCTCCTGGTCCCTGGACGGATGGAGAGAGAAAAA CAAA CAGCTCCTGGAGCAGGGAGAGTGTCTGAC

CCTTGTCTCTCGGGCCTCCCTCTGTGTGGCCCTCTGGTTTCTCCCCAGGC
 TCC CGG ACG TCC CTG CTC CTG GCT TTT GGC CTG CTC CTG
 Ser Arg Thr Ser Leu Leu Leu Phe Gly Leu Leu Cys Leu

+20 Asp of Processed TBP1

CCC TGG CTT CAA GAG GGC AGT GCC ... GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC
 pro Trp Leu Gln Glu Gly Ser Ala ... Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr

AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Ser Gly Ser Phe Thr

GCT TCA GAA AAC CAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGC ACA GTG GAC
Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Cys Thr Val Asp

CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC
Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu

▶ AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAT GAG TGT GTC

+7 Pro of hCG beta

TCC TGT GCT GCT GCT GGT GGT GGT CCA CGG TGC CGC CCC ATC AAT GCC ACC CTG GCT GTG GAG AAG GAG GGC TGC CCC GTG TGC ATC ACC GTC

AAC ACC AAC ATC TGT GCC GGC TAC TGC CCC ACC ATG ACC CGC GTG CTG CAG GGG GTC CTG CCG GCC CTG CCT CAG GTG GTG TGC AAC TAC
 Asn¹ Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr

CGC GAT GTG CGC TTC GAG TCC ATC CGG CTC CCT GGC TGC CCG CGC GGC GTG AAC CCG GTG GTC TCC TAC GCC GTG GCT CTC AGC TGT CAA
Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser Cys Gln

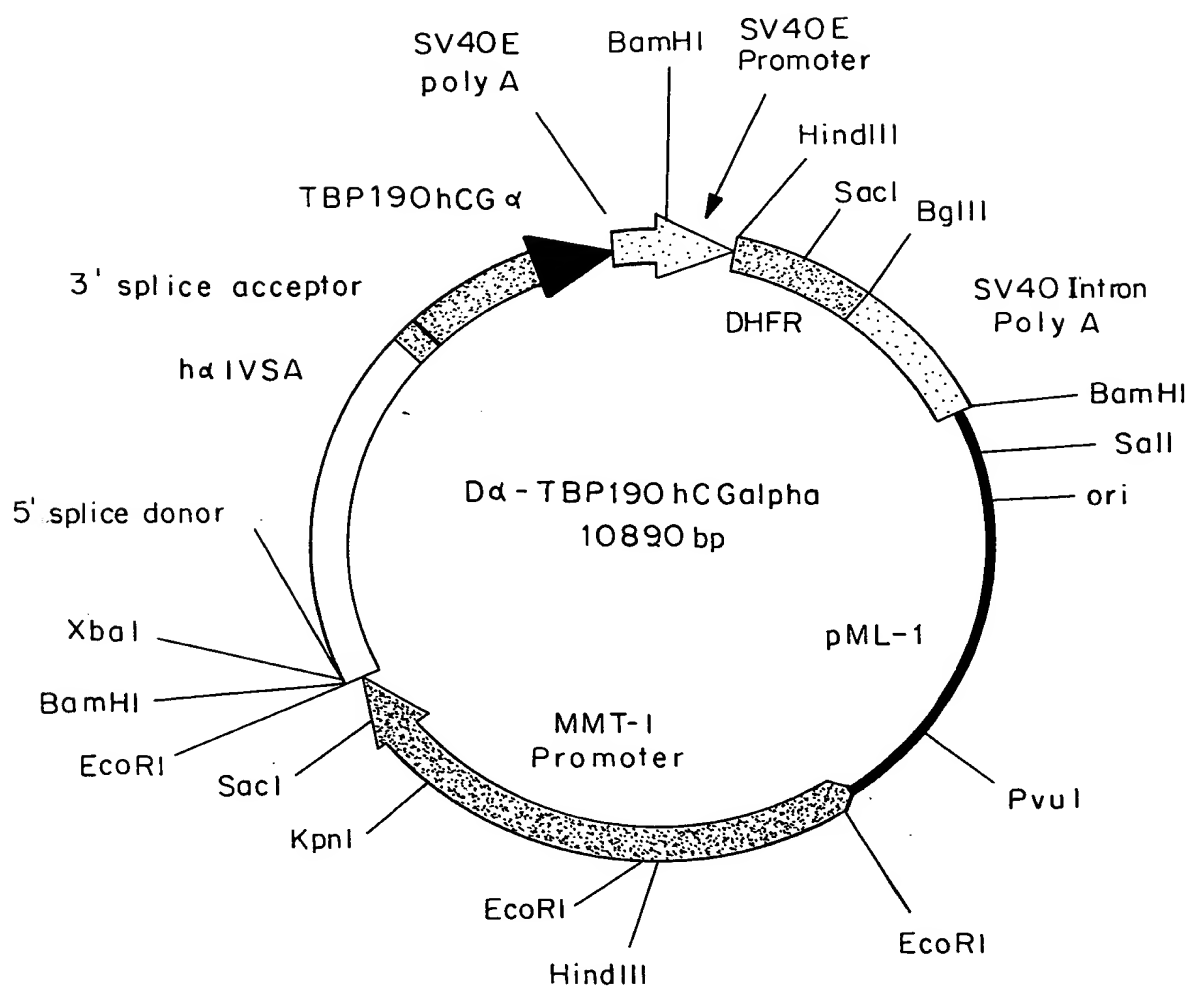
TGT GCA CTC TGC CGC CGC AGC ACC ACT GAC TGC GGG GGT CCC AAG GAC CAC CCC TTG ACC TGT GAT GAC CCC CGC TTC CAG TCC TCT
Cys Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser

TCC TCA AAG GCC CCT CCC CCC AGC CTT CCA AGC CCA TCC CGA CTC CCG GCG CCC TCG GAC ACC CCG ATC CTC CCA CAA TAA
Ser Ser Lys Ala Pro Pro Pro Ser Ser Leu Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr Pro Ile Leu Pro Gln ***

Bam HI



FIG. 2a(1)





XhoI hGH Signal Sequence hGH Intron

TCGAG ATG GCT ACA G GTAAGCGCCCTTAAATCCCTTTGGGCACAATGTGCTCTAGGGGGAGAGCAGCGACCTGTAGTGGGACGGGGGCACCTAACCTCAGGTTTGGGGTTTCT

► Met Ala Thr

GAATGTGAGTATCGCCCATGTAAAGCCCAAGTATTTTGGCCAATCTCAGAAAGCTCCTGTGTCCTGGAGGATGGAGAGAGAAAAACAACAGCTCCTGTGAGCAGGAGAGTCTGGCCCTCTTGCTCTC

Ser Arg Thr Ser Leu Leu Leu Ala Phe Gly Leu Leu Cys Leu Pro Trp Leu
 Ser Arg Thr Ser Leu Leu Leu Ala Phe Gly Leu Leu Cys Leu Pro Trp Leu

+20 Asp of processed TBPI

CAA GAG GGC AGT GCC GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA	Gln Glu Gly Ser Ala Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Ser Ile Cys Cys Thr Lys Cys His Lys Gly
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC	Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC	Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys
AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC	Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys
CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTG TCC TGT AGT AAC TGT AAG AAA AGC CTG	Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu
GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA GCC GGT GCT GCC CCA GGT TGC CCA	Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr Ala Gly Ala Pro Gly Cys Pro
GAA TGC ACG CTA CAG GAA AAC CCA TTC TCC CAG CCG GGT GCC CCA ATA CTT CAG TGC ATG GGC TGC TGC TTC TCT AGA GCA TAT CCC ACT	Glu Cys Thr Leu Gln Glu Asn Pro Phe Ser Gln Pro Gly Ala Pro Ile Leu Gln Cys Met Gly Cys Phe Ser Arg Ala Tyr Pro Thr
CCA CTA AGG TCC AAG AAG ACG ATG TTG GTC CAA AAG AAC GTC ACC TCA GAG TCC ACT TGC TGT GTA GCT AAA TCA TAT AAC AGG GTC ACA GTA	Pro Leu Arg Ser Lys Lys Thr Met Leu Val Gln Lys Asn Val Thr Ser Glu Ser Thr Cys Cys Val Ala Lys Ser Tyr Asn Arg Val Thr Val
ATG GGG GGT TTC AAA GTG GAG AAC CAC ACG GCG TGC TGC CAC TGC AGT ACT TGT TAT TAT CAC AAA TCT TAA GGATCCCTCGAG	Met Gly Gly Phe Lys Val Glu Asn His Thr Ala Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser ***

Bam HI XhoI



FIG. 2b(1)

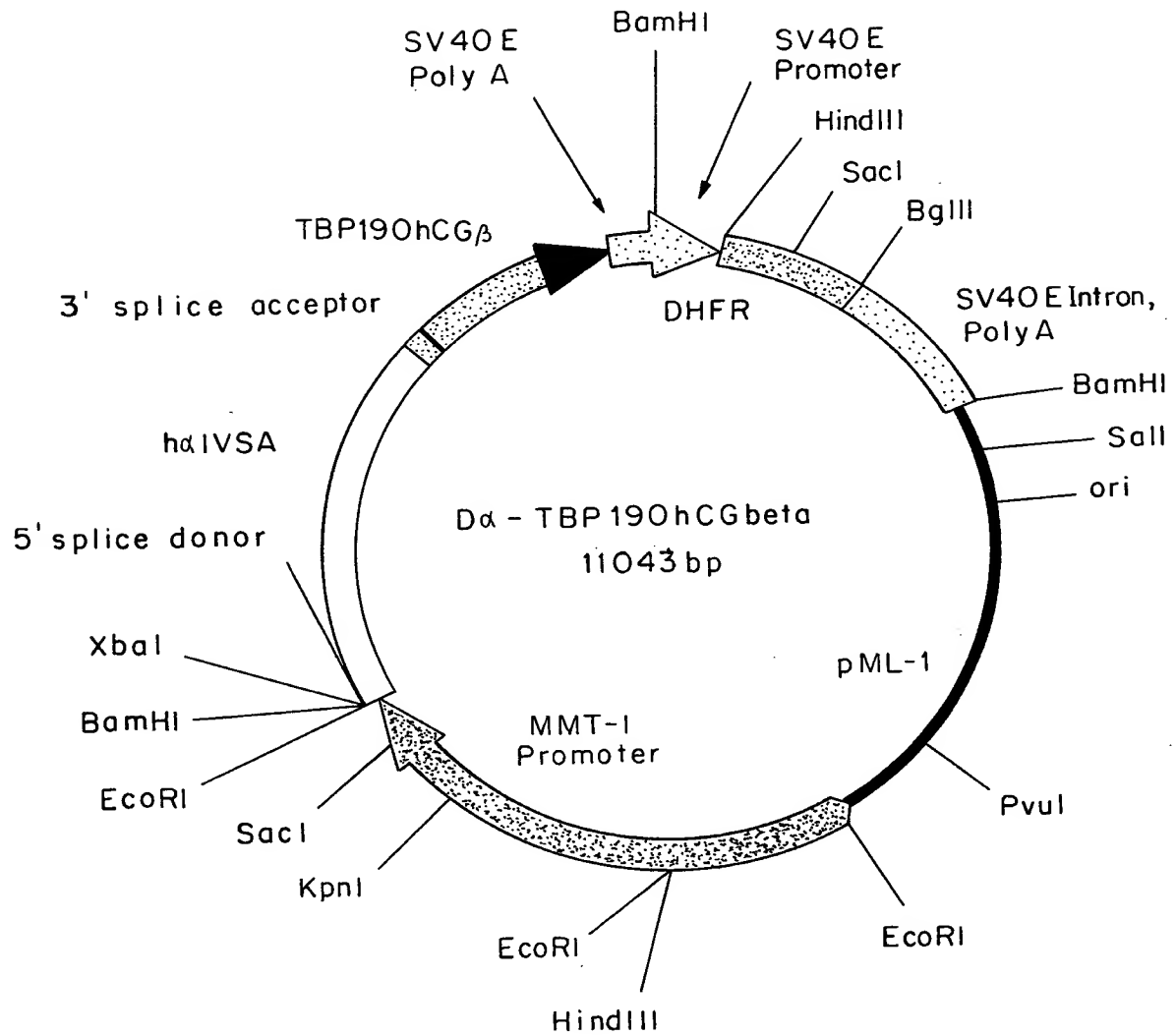




FIG. 2b(2)

XhoI hGH Signal Sequence hGH Intron
CTCGAG ATG GCT ACA G GTAAAGCCCTTAAATCCCTTTGGGCAATGTCTCTGAGGGAGAGCAGCACTGTAGATGGGACGGGGGCACTAACCCCTCAGGTTTGGG
▶ Met Ala Thr

GCTTCTGAATGTAGTATCGCCATGTAAAGCCCGATTTGGGCCAATCTCAGAAAGCTCTGTGTCCTGAGGGATGGAGAGAGAAACAAACAGCTCTCTGTAGAGGTAGTGTCTGGC
CTCTGTCTCTCGGCTCCTCTGTGTTGGCTCTGTGTTTCTCCCCAGG C TCC CGG ACG TCC CTG CTC CTG GCT TTT GGC CTG CTC TGC CTG
▶ Ser Arg Thr Ser Leu Leu Leu Ala Phe Gly Leu Leu Cys Leu

+20 Asp of Processed TBPI

CCC TGG CTT CAA GAG GGC AGT GCC GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC
▶ Pro Trp Leu Gln Glu Gly Ser Ala Asp ser val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr

AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGC CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC
▶ Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr

GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGT TGC ACA GTG GAC
▶ Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp

CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC
▶ Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu

AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC
▶ Asn Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Leu Arg Glu Asn Glu Cys Val

TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC
▶ Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr

Linker
+7 Pro of beta

ACA GCT GGT GCT GGT CCA CGG TGC CGC ACC ATC AAT GCC ACC CTG GCT GTG GAG AAG GAG GGC TGC CCC GTG TGC ATC ACC GTC AAC
▶ Thr Ala Gly Ala Gly Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr Val Asn

ACC ACC ATC TGT GCC GGC TAC TGC CCC ACC ATG ACC CGC GTG CTG CAG GGC GTC CTG CCG GCC CTG CCT CAG GTG TGC AAC TAC CGC
▶ Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr Arg

GAT GTG CGC TTC GAG TCC ATC CGG CTC CCT GGC TGC CCG GGC GTG AAC CCC GTG TCC TAC GCC GTG GCT CTC AGC TGT CAA TGT
▶ Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Ser Tyr Ala Val Ala Leu Ser Cys Gln Cys

GCA CTC TGC CGC AGC ACC ACT GAC TGC GGC GGT CCC AAG GAC CAC CCC TTG ACC TGT GAT GAC CCC CGC TTC CAG GAC TCC TCT TCC
▶ Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser

TCA AAG GCC CCT CCC AGC CTT CCA AGC CCA TCC CGG GGC CCC TCG GAC ACC CCG ATC CTC CCA TAA GGATCCCTCGAG
▶ Ser Lys Ala Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr Pro Ile Leu Pro Gln *** BamHI XhoI



FIG. 3

p55 TNFR1, TBP1 and TBP1 FUSION CONSTRUCTS

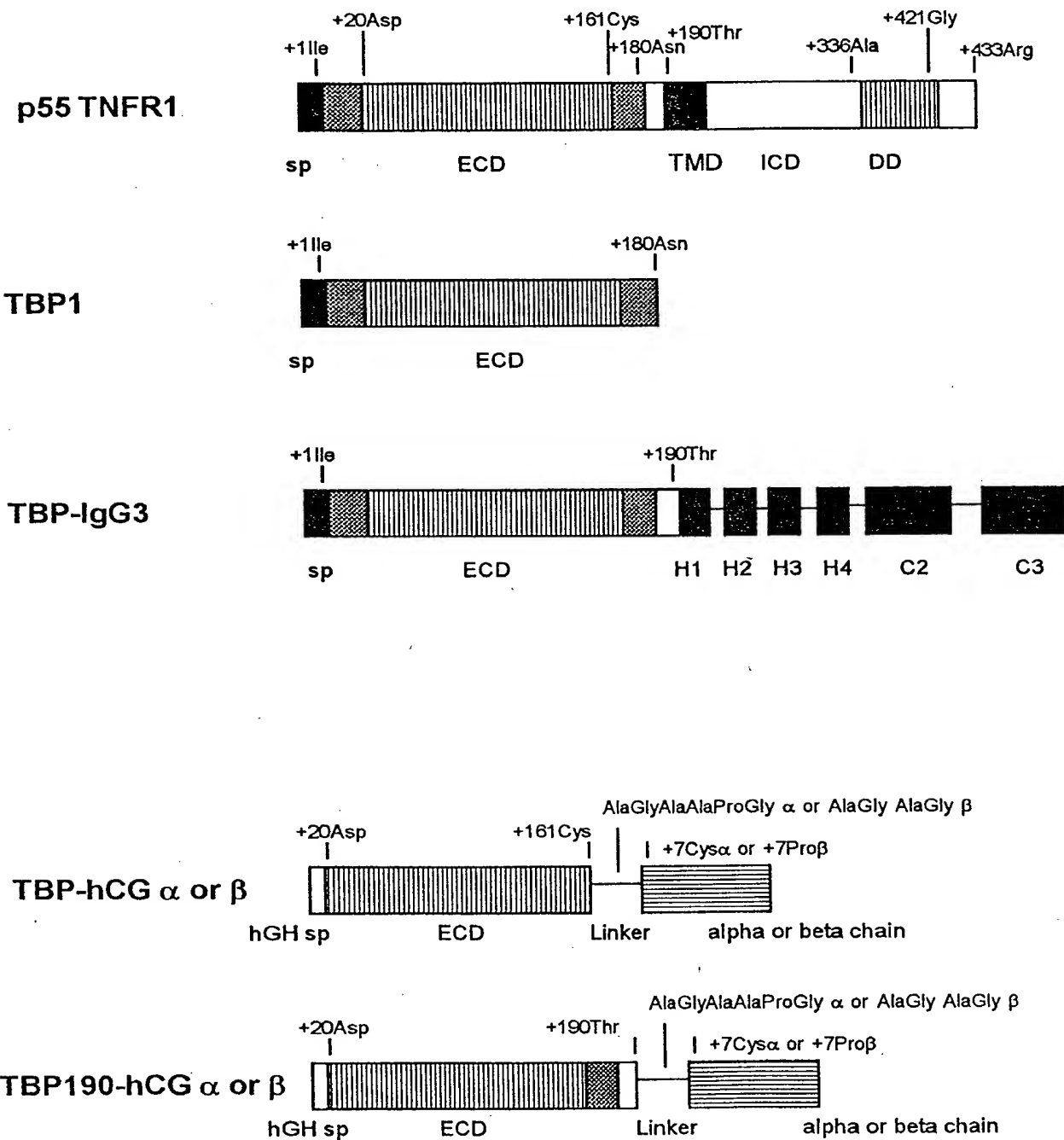
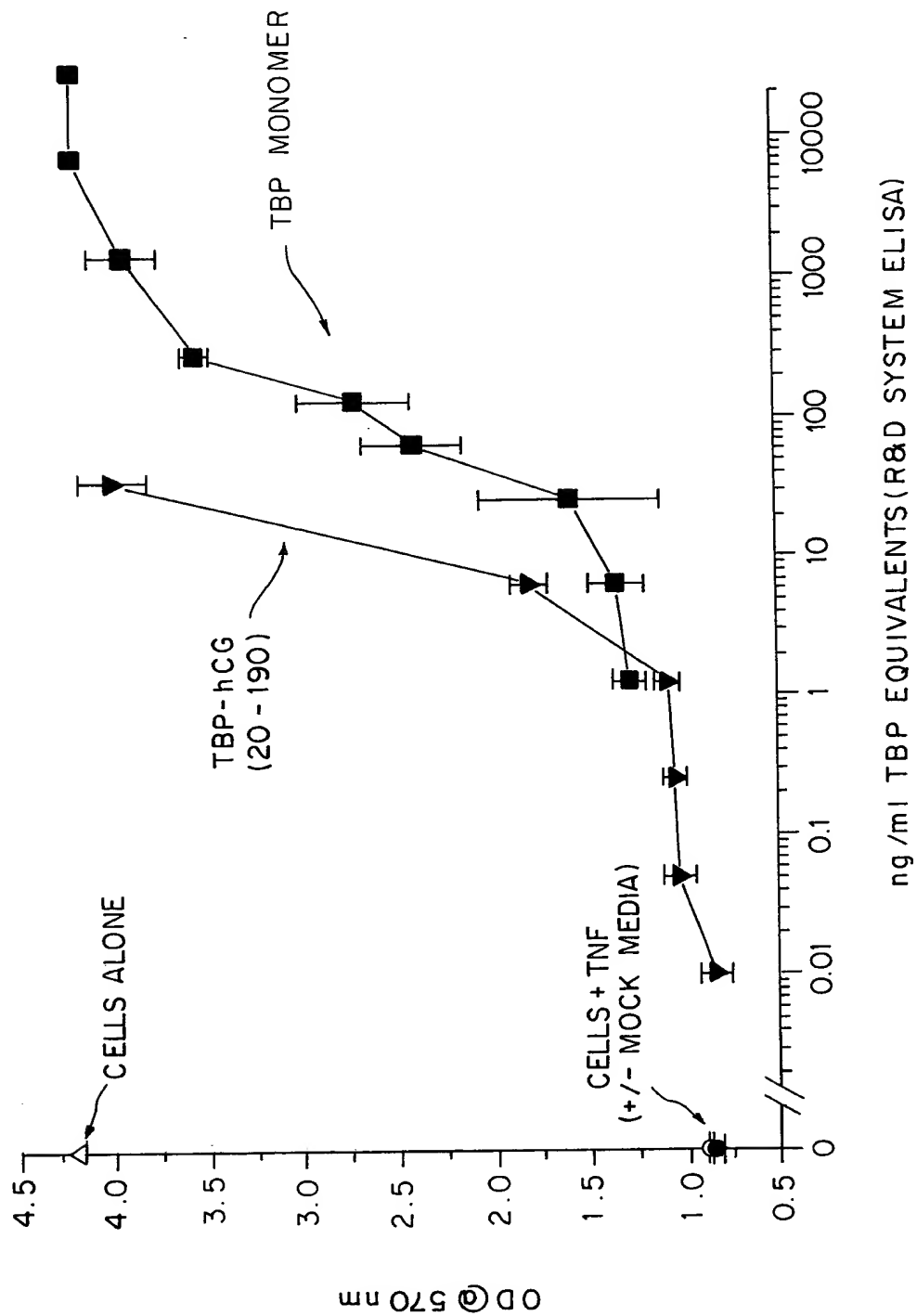




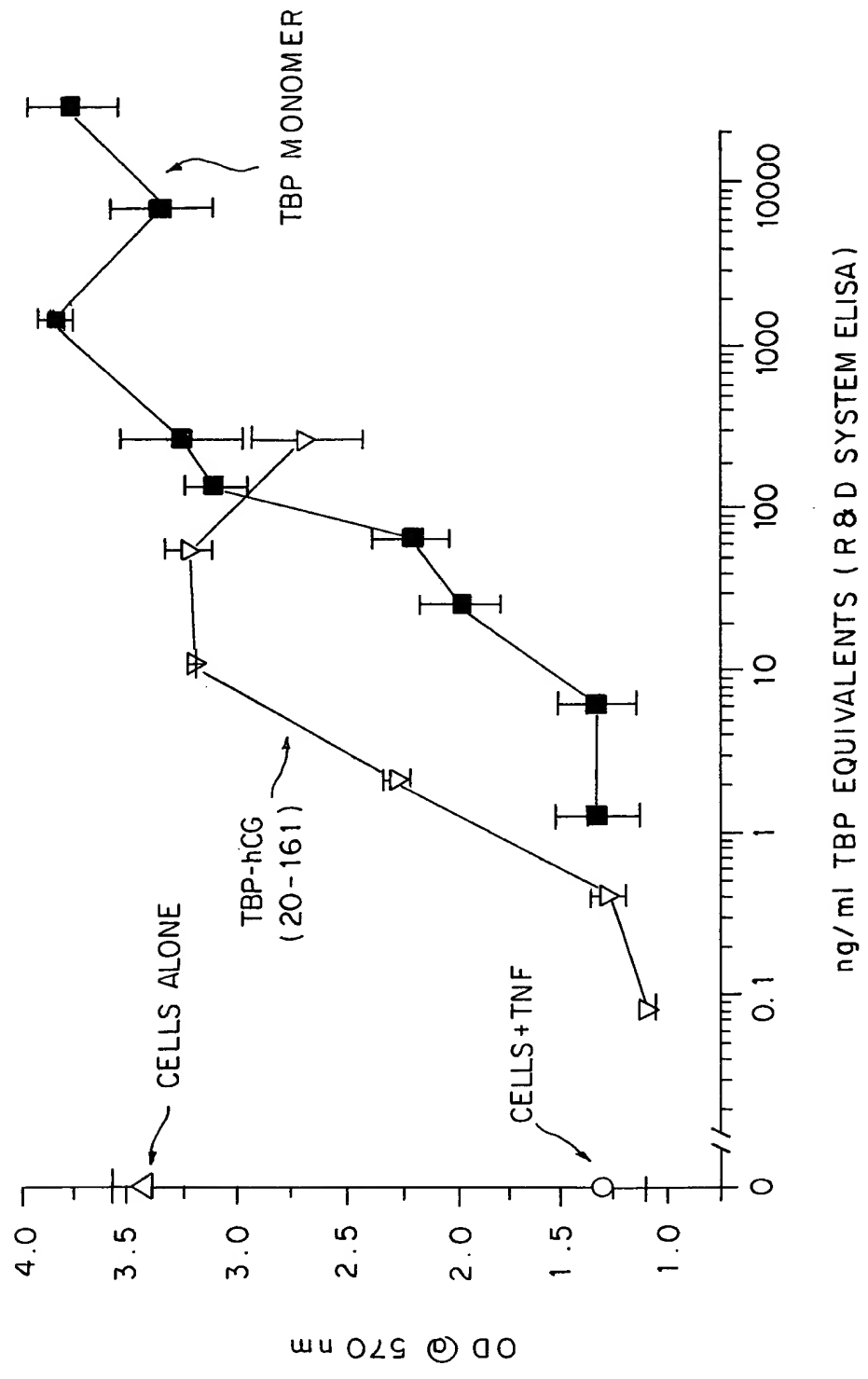
FIG. 4

- 10⁵ CELLS / WELL + 2.5 ng/ml TNF α + TBP MONOMER
- △ CELLS ALONE
- CELLS + 2.5 ng/ml TNF α (NO TBP)
- ▼— CELLS + TBP-hCG (20-190) COS7 MED + 2.5 ng/ml TNF α
- CELLS + COS7 MOCK TRANSFECTANT MEDIA + 2.5 ng/ml TNF α



- 10⁵ CELLS / WELL + 2.5 ng/ml TNF α + TBP MONOMER
- △ CELLS ALONE
- CELLS + 2.5 ng/ml TNF α (NO TBP)
- ▽ CELLS + PURIFIED TBP-hCG (20-161)

FIG. 5



■ 10⁵ CELLS / WELL + 2.5 ng/ml TNFα + TBP MONOMER

△ CELLS ALONE

○ CELLS + 2.5 ng/ml TNFα (NO TBP)

▽ CELLS + PURIFIED TBP-hCG (20-161)

FIG. 6

